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**REGISTERED PATENT AGENTS

May 25, 1999

WRITER'S DIRECT NUMBER:
(202) 789-5525

INTERNET ADDRESS:
BRIAND@SKGF.COM

Assistant Commissioner for Patents
Washington, D.C. 20231

Box Missing Parts

Re: U.S. Utility Patent Application
Appl. No. 09/266,935; Filed: March 12, 1999
For: **Compositions and Methods for Enhanced Synthesis of Nucleic Acid Molecules**
Inventors: LI *et al.*
Our Ref: 0942.4560001/RWE/BJD

Sir:

In reply to the Notice to File Missing Parts of Application--Filing Date Granted and Notice to Comply with Sequence Rules dated **March 26, 1999**, Applicants submit the following documents for appropriate action by the U.S. Patent and Trademark Office:

1. Fee Transmittal Form PTO/SB/17 (*in duplicate*);
2. Copy of the Notice to File Missing Parts of Application;
3. Combined Declaration and Power of Attorney for Patent Application, executed by Wu-Bo LI, Joel A. JESSEE, David SCHUSTER, Jiulin XIA and Gulilat GEBEYEHU;
4. An original executed Power of Attorney from Assignee;
5. Assignee 37 C.F.R. § 3.73(b) Statement with copy of Assignment attached;
6. Copy of the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures;
7. Reply to Notice to Comply With Sequence Listing Requirements (*in duplicate*);
8. Our Check No. 24495 for \$1,474.00 to cover:
\$760.00 Filing Fee for Patent Application (37 C.F.R. § 1.16);
\$324.00 Fee for excess claims (37 C.F.R. § 1.16);

STERNE. KESSLER. GOLDSTEIN & FOX P.L.L.C.

Assistant Commissioner for Patents

May 25, 1999

Page 2

\$260.00 Multiple Dependent Claim Fee (37 C.F.R. § 1.16);
\$130.00 Surcharge for late filing of Declaration (37 C.F.R. § 1.16);
and

9. One return post card.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. If extensions of time under 37 C.F.R. § 1.136 other than those otherwise provided for herewith are required to prevent abandonment of the present patent application, then such extensions of time are hereby petitioned, and any fees therefor are hereby authorized to be charged to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono
Agent for Applicants
Registration No. 42,473

RWE/BJD/dmb
Enclosures

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1.
These are the fees effective October 1, 1997.
Small Entity payments must be supported by a small entity statement,
otherwise large entity fees must be paid. See Forms PTO/SB/09-12.
See 37 C.F.R. §§ 1.27 and 1.28.

MAY 25 1999

Complete if Known

Application Number	09/266,935
Filing Date	March 12, 1999
First Named Inventor	LI et al.
Examiner Name	To be Assigned
Group / Art Unit	1635
Attorney Docket Number	0942.4560001/RWE/BJD

TOTAL AMOUNT OF PAYMENT (\$1,474.00)

METHOD OF PAYMENT (check one)

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:

Deposit Account Number: 19-0036
Deposit Account Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

- ☐ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17
☐ Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance

2. ☒ Payment Enclosed: ☒ Check No. 24495

☐ Money Order ☒ Other*
*Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.

FEE CALCULATION

1. BASIC FILING FEE

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
101	760	201	380	Utility filing fee	760.00
106	310	206	155	Design filing fee	
107	480	207	240	Plant filing fee	
108	760	208	380	Reissue filing fee	
114	150	214	75	Provisional filing fee	

SUBTOTAL (1) (\$) 760.00

2. EXTRA CLAIM FEES

	Extra	Fee from below	Fee Paid
Total Claims 38 - 20** = 18	X 18	=	324.00
Indep. Claims 2 - 3** = 0	X 0	=	0
Multiple Dependent Claims	260.00	=	260.00

** or number previously paid, if greater; For Reissues, see below

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description
103	18	203	9	Claims in excess of 20
102	78	202	39	Independent claims in excess of 3
104	260	204	130	Multiple dependant claim
108	78	209	39	**Reissue independent claims over original patent
110	18	210	9	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 584.00

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	130.00
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	380	216	190	Extension for reply within second month	
117	870	217	435	Extension for reply within third month	
118	1,360	218	680	Extension for reply within fourth month	
128	1,850	228	925	Extension for reply within fifth month	
119	300	219	150	Notice of Appeal	
120	300	220	150	Filing a brief in support of an appeal	
121	260	221	130	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,210	241	605	Petition to revive - unintentional	
142	1,210	242	605	Utility issue fee (or reissue)	
143	430	243	215	Design issue fee	
144	580	244	290	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	760	246	380	Filing a submission after final rejection (37 CFR 1.129(a))	
149	760	249	380	For each additional invention to be examined (37 CFR 1.129(b))	

Other fee (specify):

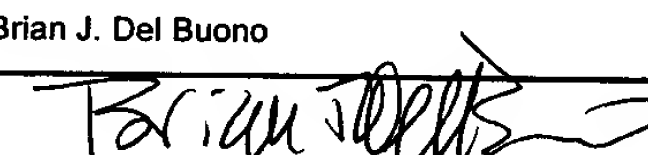
Other fee (specify):

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 130.00

SUBMITTED BY

Complete (if applicable)

Typed or Printed Name	Brian J. Del Buono	Reg. Number	42,473
Signature		Date	May 25, 1999
		Deposit Acct. User ID	

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

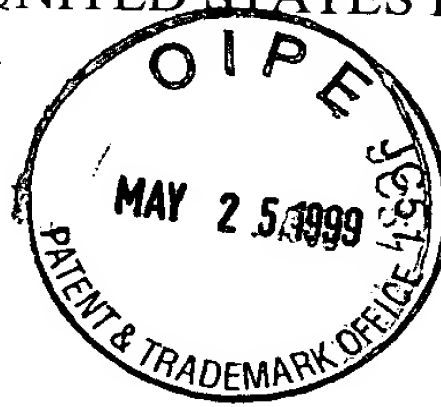
In re application of:

LI *et al.*

Appl. No.: 09/266,935

Filed: March 12, 1999

For: **Compositions and Methods for
Enhanced Synthesis of Nucleic Acid
Molecules**



Art Unit: 1635

Examiner: (To be assigned)

Atty Docket: 0942.4560001/RWE/BJD

Reply to Notice to Comply With Sequence Listing Requirements

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

In reply to the Notice to Comply With Sequence Requirements (Form PTO-1661) dated March 26, 1999, stating that the above-captioned application does not comply with the sequence listing requirements under 37 C.F.R. §§ 1.821-1.825, Applicants reply as follows.

Applicants respectfully submit that this Notice has been issued in error. Under 37 C.F.R. §§ 1.821-1.825, submission of a sequence listing is only required when an application discloses one or more unbranched nucleotide sequences of ten or more nucleotides, or one or more unbranched amino acid sequences of four or more amino acids. *See* 37 C.F.R. § 1.821(a), (c). The present application does not contain unbranched nucleotide sequences of ten or more nucleotides, nor unbranched amino acid sequences of four or more amino acids. The sequence listing requirements of 37 C.F.R. §§ 1.821-1.825 therefore are not applicable to the present application. Applicants therefore respectfully assert that the Notice to Comply With Sequence Listing Rules mailed on March 26, 1999, has been issued in error and should be withdrawn.

Applicants believe that a full and complete reply has been made to the Notice to Comply With Sequence Requirements. Hence, Applicants respectfully assert that the present application is in condition for immediate examination. If the Examiner believes, for any reason, that personal communication regarding this or any other matter will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036. A duplicate copy of this pleading is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono
Agent for Applicants
Registration No. 42,473

Date: May 25, 1999

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
051499.reply.seq.lst.wpd



Certificate Under 37 C.F.R. § 3.73(b)

Applicants/Patent Owner: Wu-Bo LI et al

Application No. 09/266,935

Filed Date: March 12, 1998

Entitled: COMPOSITIONS AND METHODS FOR ENHANCED SYNTHESIS OF NUCLEIC ACID MOLECULES

Life Technologies, Inc.

(Name of Assignee)

, a corporation

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest, or
2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

- A. ☒ An Assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s) of the patent application/patent identified above to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE:] A separate copy (*i.e.*, the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302-302.8]

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

Date: 5/7/99

Name: Alan Hammond, Esq.

Title: Intellectual Property Attorney

Signature: Alan Hammond



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARK
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
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09/266,935

03/12/99

LI

W

0942.456000

STERNE KESSLER GOLDSTEIN & FOX
SUITE 600
1100 NEW YORK AVENUE N W
WASHINGTON DC 20005-3934

0222/0326

NOT ASSIGNED

1635

DATE MAILED:

03/26/99

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS
CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application fails to comply with the requirements of 37 CFR 1.821 - 1.825.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e).
- ☐ 7. OTHER:

APPLICANT MUST PROVIDE:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing."
- ☒ An initial or substitute paper copy of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).

FOR QUESTIONS REGARDING COMPLIANCE WITH THESE REQUIREMENTS, PLEASE CONTACT:

- ☐ For Rules Interpretation, call (703) 308-1123.
- ☐ For CRF submission help, call (703) 308-4212.
- ☐ For PatentIn software help, call (703) 308-6856.

C. Mollis
Customer Service Center
Initial Patent Examination Division (703) 308-1202



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
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09/266,935 03/12/99 LI

0222/0326

STERNE KESSLER GOLDSTEIN & FOX
SUITE 600
1100 NEW YORK AVENUE N.W.
WASHINGTON DC 20005-3934

NOT ASSIGNED

DATE MAILED:

03/26/99

NOTICE TO FILE MISSING PARTS OF APPLICATION Filing Date Granted

An Application Number and Filing Date have been assigned to this application. The items indicated below, however, are missing. Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). If any of items 1 or 3 through 5 are indicated as missing, the SURCHARGE set forth in 37 CFR 1.16(e) of ☐ \$65.00 for a small entity in compliance with 37 CFR 1.27, or ☒ \$130.00 for a non-small entity, must also be timely submitted in reply to this NOTICE to avoid abandonment.

If all required items on this form are filed within the period set above, the total amount owed by applicant as a

☐ small entity (statement filed) ☒ non-small entity is \$ 130.00

☐ 1. The statutory basic filing fee is:

- ☐ missing.
☐ insufficient.

Applicant must submit \$ _____ to complete the basic filing fee and/or file a small entity statement claiming such status (37 CFR 1.27).

☐ 2. Additional claim fees of \$ _____, including any multiple dependent claim fees, are required.

\$ _____ for _____ independent claims over 3.

\$ _____ for _____ dependent claims over 20.

\$ _____ for multiple dependent claim surcharge.

Applicant must either submit the additional claim fees or cancel additional claims for which fees are due.

☒ 3. The oath or declaration:

- ☒ is missing or unexecuted.
☐ does not cover the newly submitted items.
☐ does not identify the application to which it applies.
☐ does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.

☐ 4. The signature(s) to the oath or declaration is/are by a person other than inventor or person qualified under 37 CFR 1.42, 1.43 or 1.47.

A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

☐ 5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration in compliance with 37 CFR 1.63 listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

☐ 6. A \$50.00 processing fee is required since your check was returned without payment (37 CFR 1.21(m)).

☐ 7. Your filing receipt was mailed in error because your check was returned without payment.

☒ 8. The application does not comply with the Sequence Rules.

See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."

☐ 9. OTHER:

Direct the reply and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the reply.

Customer Service Center
Initial Patent Examination Division (703) 308-1202

1999 TL011 0000090 09266935

130.00 OP
1344.00 OP